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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/436,458	11/08/1999	EPHRAIM ZEHA VI	04198.P003	6669

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EXAMINER

JONES, PRENELL P

ART UNIT	PAPER NUMBER
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2664

DATE MAILED: 04/11/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.
09/436,458Applicant(s)
Zehavi et al.Examiner
Prenell JonesArt Unit
2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Nov 8, 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-22 and 29-31 is/are allowed.
- 6) ☒ Claim(s) 1, 5, 7, 13, 23, and 26 is/are rejected.
- 7) ☒ Claim(s) 2-4, 6, 8-12, 14-16, 24, 25, 27, and 28 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4, 7, 9 6) ☐ Other:

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Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: A statement signed by the Applicant/Applicants giving his/her complete post office address (37 CFR 1.33(a)).

Claim Rejections - 35 U.S.C. § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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3. Claim 1, 5, 13, 23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weissman et al in view of Haartsen and Soliman..

Regarding claims 1, 5, 13, 23 and 26, Weissman discloses (Abstract, Fig. 4, col. 7, line 61-67, col. 8, line 57 thru col. 9, line 5, col. 10, line 6-16) in building radio frequency coverage that includes a wireless transceivers, a first and second wireless system, first/second wireless protocols (PCS/Cellular), diversity master unit, up/down conversions, (col. 8, line 32 thru col.10, line 67) IF up/down conversions and a controller for setting frequencies. Weissman is silent on multiple up/down conversions and a controller coupled to a wireless transceiver. In analogous art, Haartsen discloses (Abstract, Figs. 2, 3, 4 & 10, col. 3, line 9-63) a radio transceiver associated with a multi-carrier radio system that includes the production of first/second down conversion and first/second up conversion and a controller indirectly coupled to transceiver and Soliman discloses (Abstract, Fig. 6, col. 2, line 28 thru col. 3, line 63) a wireless architecture that includes wireless transceivers (BTS) wherein a BTS and base station controller (BSC) are coupled together and a(col. 8, line 27-57) receiver provides two stages of down and up conversions. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have been motivated to implement multiple up/down conversions and a controller coupled to a wireless transceiver as taught by the combined teachings of Haartsen and Soliman with the teachings of Weissman for the purpose of further effectively processing data/signal (signal conversion between frequencies) in a wireless environment associated with multiple protocol communication among users whereas to allow for coherent communication in a wireless network system.

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4. Claims 7 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Weissman et al in view of Haartsen and Soliman as applied to claim 1 above, and further in view of Blasing et al.

Regarding claims 7 and 13, as indicated above, Weissman discloses (Abstract, Fig. 4, col. 7, line 61-67, col. 8, line 57 thru col. 9, line 5, col. 10, line 6-16) in building radio frequency coverage that includes a wireless transceivers, a first and second wireless system, first/second wireless protocols (PCS/Cellular), diversity master unit, up/down conversions, (col. 8, line 32 thru col.10, line 67) IF up/down conversions and a controller for setting frequencies, Haartsen discloses (Abstract, Figs. 2, 3, 4 & 10, col. 3, line 9-63) a radio transceiver associated with a multi-carrier radio system that includes the production of first/second down conversion and first/second up conversion and a controller indirectly coupled to transceiver and Soliman discloses (Abstract, Fig. 6, col. 2, line 28 thru col. 3, line 63) a wireless architecture that includes wireless transceivers (BTS) wherein a BTS and base station controller (BSC) are coupled together and a(col. 8, line 27-57) receiver provides two stages of down and up conversions. In addition, it is inherent that in a transceiver there exist a combined signal transmitter/receiver section. Weissman, Haartsen and Soliman are silent on time sharing. In analogous art, Blasing discloses in a dual frequency wireless telecommunication system (Abstract, Figs. 15, 21-24, col. 12, line 34-67, col. 13, line 63 thru col. 14, line 51, col. 16, line 41-46) that includes up/down conversions and a controller for implementing time sharing techniques. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have been motivated to implement time sharing via a controller as taught by Blasing with the combined teachings of Haartsen, Soliman and Weissman for the purpose of managing usage of system resources associated with a wireless system.

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Allowable Subject Matter

5. Claims 2-4, 6, 8-12, 15, 16, 24, 25, 27, 28, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 2 and 3, the limitation, “selectively couples a first signal up conversion section to the joint signal transmit/receive section to perform transmit of signals to network devices of first wireless network, while keeping a second signal up conversion section de-coupled from the joint signal transmit/receive section preventing signals from being transmitted to network device of second wireless network” is absent from the art.

Regarding claim 4, the limitation “selectively de-couples both a first and a second signal up conversion section from the joint signal transmit/receive section to prevent signals from being transmitted to network devices of first/second networks” is absent from the art.

Regarding claim 6, the limitation, “controller enables the signal processing section to simultaneously process signals received from network devices of wireless network, stops signal processing section from processing signals output by down conversion sections of wireless transceiver” is absent from the art.

Regarding claims 8-11, the limitation, “a processor adapted to control the wireless transceiver in a first transmit mode for the first protocol, a second transmit mode for the second protocol, and a joint receive mode for both protocols, in accordance with the time sharing schedule” is absent from the art.

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Regarding claim 12, the limitation, “first and second protocol are two protocols selected from a group consisting of Bluetooth, 802.11, 802.11a, 802.11b and Hone RF” is absent from the art.

Regarding claim 14, the limitation, “the apparatus is a computer having a form factor selected from a group consisting of a desktop type, notebook type and palm sized type” is absent from the art.

Regarding claim 15 and 16, the limitation, “selectively couples a signal up conversion section to the first transmit signal processing section to perform transmit of signals to network devices of first network, while keeping the second transmit signal processing section de-coupled from the signal up-conversion section, preventing signals from being transmitted to network devices” is absent from the art.

6. Claims 17-22 and 29-31 are allowed over prior art.

Regarding claims 17-22, the limitation, “coupling a first signal up conversion section to the joint signal transmit/receive section to perform transmit of signals of to network devices of a first wireless network in accordance with a first protocol, while keeping a second signal up conversion section de-coupled from the joint signal transmit/receive section to prevent signals from being transmitted to network devices of a second wireless network in accordance with a second protocol and coupling the second signal up conversion section to the joint signal transmit/receive section to perform transmit of signals to network devices of second wireless network in accordance with second protocol, while keeping the first signal up conversion section de-coupled from the joint signal transmit/receive section to prevent signals from being transmitted to network devices of first wireless network in accordance with the first protocol” is absent from the art.

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Regarding claim 29, the limitation "a gateway apparatus equipped to communicate wirelessly with first/second apparatus in accordance with first/second protocols, as well as automatically coordinate transmit/receive operations conducted in accordance with two protocols to enable the gateway apparatus to operate with the first/second plurality apparatus concurrently" is absent from the art.

Regarding claims 30 and 31, the limitation "a gateway apparatus is further equipped to perform automatic coordination of transmit/receive operations conducted in accordance with two protocols in an adaptive manner based at least in part on transmit or receive workloads of the two protocols" is absent from the art.

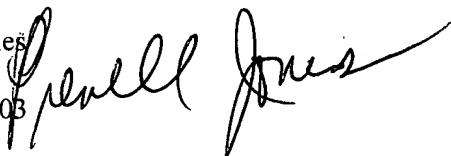
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell Jones whose telephone number is (703) 305-0630. The examiner can normally be reached on Monday thru Friday from 9:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (703) 305-4366. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Prenell Jones

April 7, 2003

A handwritten signature in black ink, appearing to read "Prenell Jones", written over the typed name and date.